U.S. Department of the Interior Bureau of Land Management White River Field Office 73544 Hwy 64 Meeker, CO 81641

ENVIRONMENTAL ASSESSMENT

NUMBER: CO-110-2004-206-EA

<u>CASEFILE/PROJECT NUMBER</u> ROW COC 34301; O/G leases COC10700, COC2756, COC10698A, and COC9500

PROJECT NAME: Evergreen 7 wells, access, waterlines, and natural gas lines

LEGAL DESCRIPTION:

Columbine Springs Federal

APPLICANT: Evergreen Resources Inc.

ISSUES AND CONCERNS (optional):

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES:

Background/Introduction: Evergreen Resources plans to drill 3 additional wells in the vicinity of Whiskey Creek, 2 in the vicinity of East Evacuation Creek, and 2 in the vicinity of Missouri Creek.

Proposed Action: Seven new wells would be drilled to depths of from 1200 to 2000 feet, utilizing conventional drilling methods.

The proposed pads are all approximately 150 ft by 270 ft, with 50 ft by 100 ft pits (the 9C-33 pit would be 30 ft by 140 ft). Total disturbance from this construction would be approximately 7.7 acres. Liners are not proposed for these pits.

Approximately 3300 ft of road would be constructed with 40 ft of disturbed width (3.0 acres). Approximately 8700 ft of pipelines (4-in steel gas pipeline to be built by Canyon Gas, and 4-in poly waterline) would be buried along existing roads, with 20 ft of new disturbance (4.0 acres).

An additional 2600 ft of pipelines (4-in steel gas pipeline to be built by Canyon Gas, and 4-in poly waterline) would follow new roads, in the same disturbed area. Approximately 1600 ft of buried pipelines (4-in steel gas pipeline to be constructed by Canyon, and a 4-in poly water pipeline would follow the right-of-way for an existing 2-inch surface pipeline owned by the operator of the nearby 33-1 well. Maximum disturbed width for construction of these lines would be approximately 40 feet (1.5 acres). Total new disturbance for the proposed action would be approximately 16.2 acres.

Roads would be crowned and ditched, and would have a 15-foot running surface. No culverts, turnouts, gates or cattleguards are proposed.

Rights-of-way would be required for all of Canyon Gas' pipelines, and for access and waterlines which are located off-lease.

Evergreen has an existing ROW along the Missouri Creek Road. The Timber Canyon access road will be 1.75 miles, of which 3000 feet will be off lease. Applicant requests a 20 feet width and a 30 year grant. The 4 inch plastic water line for this well will be buried along the access road. Total length will be 9500 feet, 30 feet wide, and total disturbance will be 6.543 acres.

Evergreen would also need a right-of-way for off-lease use of 5.3 miles of existing road along and off of East Evacuation Creek.

No Action Alternative: The wells would not be drilled and there would be no access or pipeline needs.

ALTERNATIVES CONSIDERED BUT NOT CARRIED FORWARD: none

NEED FOR THE ACTION: Applicant requests authorizations to enable the development of their leases.

<u>PLAN CONFORMANCE REVIEW</u>: The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: White River Record of Decision and Approved Resource Management Plan (ROD/RMP).

Date Approved: July 1, 1997

<u>Decision Number/Page</u>: Pages 2-49 thru 2-52

<u>Decision Language</u>: "To make public lands available for the siting of public and private facilities through the issuance of applicable land use authorizations, in a manner that provides for reasonable protection of other resource values."

<u>AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES / MITIGATION MEASURES:</u>

STANDARDS FOR PUBLIC LAND HEALTH: In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below:

CRITICAL ELEMENTS

AIR QUALITY

Affected Environment: There are no special designation air sheds or non-attainment areas nearby that would be affected by the proposed action. During periods of low precipitation, air quality in the area of the proposed action is often diminished by dust caused by human disturbance.

Environmental Consequences of the Proposed Action: The proposed action would result in short term, local impacts to air quality during and after construction, due to dust being blown into the air. After adequate vegetation is reestablished, blowing dust should return to preconstruction levels.

Environmental Consequences of the No Action Alternative: No increase in dust will occur.

Mitigation: Require water spreading on the road surfaces to control fugitive dust and to help minimize short-term impacts.

CULTURAL RESOURCES

Affected Environment: Columbine Springs Federal 2C-9-4S-103 well pad, access and well tie pipeline: the proposed well pad, access road and well tie pipeline have been inventoried at the Class III (100% pedestrian) level (Jennings 2004, Compliance Dated 9/16/2004) with no new cultural resources identified in the inventory area.

Columbine Springs Federal 1C-24-4S-104 well pad, access road and well tie pipeline: The proposed well pad, access road and well tie pipeline have been inventoried at the Class III (100% pedestrian) level (Brogan and Hall 2004, Compliance Dated 6/29/2004) with no new cultural resources identified in the inventory area.

Columbine Springs Federal 7C-24-4S-104 well pad and access road: the proposed well pad and access road have been inventoried at the Class III (100% pedestrian) level (Brogan and Hall 2004, Compliance Dated 6/29/2004, Jennings 2004, Compliance Dated 9/16/2004) with no new cultural resources identified in the area inventoried.

Columbine Springs Federal 16C-25-4S-104 well pad, access road and well tie pipeline: the proposed well pad, access road and well tie pipeline have been inventoried at the Class III (100% pedestrian) level (Brogan and Hall 2004, Compliance Dated 6/29/2004) with no new cultural resources identified in the inventory area.

Columbine Springs Federal 10C-26-4S-104 well pad, access road and well tie pipeline: The proposed well pad, access road and well tie pipeline have been inventoried at the Class III (100% pedestrian) level (Brogan and Hall 2004, Compliance Dated 6/29/2004, Jennings 2004, Compliance Dated 9/16/2004), with no cultural resources identified in any of the inventoried areas.

Columbine Springs Federal 9C-33-4S-103 well pad, access road and well tie pipeline: The proposed well pad, access road and well tie pipeline have been inventoried at the Class III (100% pedestrian) level (Jennings 2004, Compliance Dated 9/16/2004) with no new cultural resources identified in the inventory area.

Columbine Springs Federal 15C-9-5S-103 well pad, access road and well tie pipeline: the proposed well pad, access road and well tie pipeline have been inventoried at the Class III (100% pedestrian) level (Jennings 2004, Compliance Dated 9/16/2004) with no new cultural resources identified in the inventory area.

Environmental Consequences of the Proposed Action: Columbine Springs Federal 2C-9-4S-103 well pad, access and well tie pipeline: the proposed well pad, access and well tie pipeline will not impact any known cultural resources.

Columbine Springs Federal 1C-24-4S-104 well pad, access and well tie pipeline: the proposed action will not impact any known cultural resources.

Columbine Springs Federal 7C-24-4S-104 well pad and access road: the proposed well pad, access and well tie pipeline will not impact any known cultural resources.

Columbine Springs Federal 16C-25-4S-104 well pad, access road and well tie pipeline: the proposed well pad, access road and well tie pipeline will not impact any known cultural resources.

Columbine Springs Federal 10C-26-4S-104 well pad, access road and well tie pipeline: the proposed well pad, access and well tie pipeline will not impact any known cultural resources.

Columbine Springs Federal 9C-33-4S-103 well pad, access road and well tie pipeline: the proposed well pad, access and well tie pipeline will not impact any known cultural resources.

Columbine Springs Federal 15C-9-5S-103 well pad, access road and well tie pipeline: the proposed well pad, access road and well tie pipeline will not impact any known cultural resources.

Environmental Consequences of the No Action Alternative: There would be no new impacts to cultural resources under the No Action Alternative.

Mitigation: Apply the following mitigation to the proposed action: 1. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

2. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

INVASIVE, NON-NATIVE SPECIES

Affected Environment: Three vegetation types are represented in the proposed action. They are pinyon/juniper woodland, upland sage and bottom sage/greasewood. The pinyon/juniper community has shallow sandstone derived soils with a very sparse understory of grasses and forbs. The bottom sage/greasewood community has deep soils and contains sagebrush, greasewood, blue grama, and cheatgrass. The upland sage community contains sagebrush, winterfat, shadscale, salina wildrye, needle-and-thread grass, Indian ricegrass and cheatgrass.

Several noxious weed species have been found in the area including Russian and spotted knapweed, bull and musk thistle, hoary cress and cheatgrass. The outbreaks of knapweed were on well pads and were probably transported on site by construction equipment or support vehicles. All of the sites found have been treated and controlled.

Environmental Consequences of the Proposed Action: Using the proposed seed mix should establish quickly and stabilize soils. The seed mix contains non-native species and these are recommended because of the harsh environmental conditions. The recommended species have not been shown to hybridize with adjacent plant species or to move offsite. Controlling noxious weeds as described by mitigation would prevent noxious weed species from moving offsite and establishing in the adjacent plant communities.

Environmental Consequences of the No Action Alternative: There would be no impacts.

Mitigation: From the Whiter River ROD/RMP of 1997, Appendix B, Application of herbicides must be under field supervision of an EPA-certified pesticide applicator. Herbicides must be registered by the EPA and application proposals must be approved by the BLM.

Seed species used in reseeding disturbed areas will be based on the seed mixes identified in table B1 and B2. These mixes are based on range sites as determined by soils. Use Standard Seed Mix #2 listed below.

Seed Mix #	Species (Variety)	Lbs PLS/ Acre	Range sites
2	Western wheatgrass (Arriba)	3	Alkaline Slopes, Clayey
	Pubescent wheatgrass (Luna)	2	Foothills, Clayey Slopes,
	Russian wildrye (Bozoisky)	2	Claypan, Mountain Shale
	Crested wheatgrass (Fairway/Ephraim)	2	
	Yellow sweetclover (Madrid)	0.5	
	Fourwing saltbush (Wytana/Rincon)	2	
	Alternates: Winterfat		

Table B-1. Standard Seed Mixes

MIGRATORY BIRDS

Affected Environment: These locations vary in habitat type from lower elevation areas of sagebrush, greasewood and pinyon-juniper woodlands to higher elevation areas with sagebrush, pinyon-juniper with some oak brush and young Douglas-fir. There are a number of migratory birds that fulfill nesting functions in these types from April through July, including several species identified as having higher conservation interest by the Rocky Mountain Bird Observatory, Partners in Flight program (i.e., green-tailed towhee, gray flycatcher, juniper titmouse, black-throated gray warbler). These and more common and generalized species associated with these habitats (e.g., house finch, chipping sparrow, lark sparrow, vesper sparrow, and spotted towhee) are widely represented at appropriate densities in extensive suitable habitats throughout the Resource Area.

Environmental Consequences of the Proposed Action: Construction and drilling/completion activities associated with these pads are scheduled to during the fall and winter months; there would be no potential to disrupt the nesting activities of migratory birds.

Environmental Consequences of the No Action Alternative: There would be no action authorized that would have potential to disrupt the breeding activities of migratory birds. Alternate actions would have similar or more substantive consequences as those discussed under the proposed action.

Mitigation: None.

THREATENED, ENDANGERED, AND SENSITIVE ANIMAL SPECIES (includes a finding on Standard 4)

Affected Environment: There are no animals listed under the Endangered Species Act or included on BLM's sensitive species list that inhabit or derive important benefit from the area potentially influenced by the proposed action.

Environmental Consequences of the Proposed Action: The proposed action would have no conceivable affect on animals listed, proposed, candidate, or petitioned for listing under the Endangered Species Act. Similarly, there are no animals considered sensitive by BLM that would be potentially influenced by this action.

Environmental Consequences of the No Action Alternative: None.

Mitigation: None.

Finding on the Public Land Health Standard for Threatened & Endangered species: The proposed and no-action alternative would have no effective influence on special status species or associated habitat and would, therefore, have no potential to influence the status of applicable land health standards.

WASTES, HAZARDOUS OR SOLID

Affected Environment: There are no known hazardous or other solid wastes on the subject lands. No hazardous materials are known to have been used, stored or disposed of at sites included in the project area.

Environmental Consequences of the Proposed Action: No listed or extremely hazardous materials in excess of threshold quantities are proposed for use in this project. While commercial preparations of fuels and lubricants proposed for use may contain some hazardous constituents, they would be stored, used and transported in a manner consistent with applicable laws, and the

generation of hazardous wastes would not be anticipated. Solid wastes would be properly disposed of.

Environmental Consequences of the No Action Alternative: No hazardous or other solid wastes would be generated under the no-action alternative.

Mitigation: The operator shall be required to collect and properly dispose of any solid wastes generated by the proposed actions.

WATER QUALITY, SURFACE AND GROUND (includes a finding on Standard 5)

Affected Environment: The table below correlates the proposed well to drainage locations. All of the listed drainages are tributary to the White River in Utah.

WELL NUMBER	DRAINAGE NAME
15C-9	Evacuation Creek
9C-33	Evacuation Creek
10C-26	West Timber Canyon
2C-9	Missouri Creek
16C-25	Whiskey Creek
1C-24	Whiskey Creek
7C-24	Whiskey Creek

Drainages are tributary to the White River in Utah. As required by the Clean Water Act, the state of Utah has designated the White River from the Colorado-Utah state line to its confluence with the Green River as fully supporting of all of its beneficial use classifications. This stream reach=s beneficial use classifications are: Recreation and Aesthetics, 2B; and Aquatic Life Use Support, 3C. Four parameters have been listed on the Numeric Criteria for this reach. These are: dissolved oxygen, 5.5 mg/l; pH, 6.5-9.0; maximum Fecal Coliform, 2000/100mL; and maximum Total Coliform, 5000/100mL. For these parameters, a fully supporting rating indicated the criterion was not exceeded in more than 10% of the samples collected. While the highest level of water quality protection does not apply to these waters, they are protected for their existing uses and from further degradation as a result of non-point source (sediment) pollution. Efforts need to be made to keep sediment from leaving the site.

Environmental Consequences of the Proposed Action: Annual runoff from these watersheds is dynamic and dependent on some aspects we control, such as the amount of vegetation retained for watershed protection and vegetation density. Depleting the vegetation cover needed to protect watersheds from raindrop impact and runoff could cause short-term erosion problems and increased sedimentation to Evacuation Creek and on down to the White River until successful best management practices (BMPs) have been implemented and proven successful. The magnitude of these impacts is dependent on the amount of surface disturbance, climatic conditions during the time the soils are exposed to the elements and the success of the mitigation proposed in the proposed action.

Environmental Consequences of the No Action Alternative: No impacts from the noaction alternative are anticipated.

Mitigation: Through the use of BMPs, keep sediment from leaving the proposed site. All disturbed areas including the cut and fill slopes not necessary for production will be promptly recontoured and revegetated using the recommended seed mix in the Vegetation section below. Refer to mitigation in the Riparian section below for BMPs for the stream crossings.

Finding on the Public Land Health Standard for water quality: The water quality of Evacuation Creek is well within the criteria set by the state, thus meeting the land health standard. The proposed action will not change this status.

WETLANDS AND RIPARIAN ZONES (includes a finding on Standard 2)

Affected Environment: Well #2C-9-4S-103 is the only well from the proposed action that is located in close proximity to a riparian area (Missouri Creek). The proposed access road crosses Missouri Creek. The pad location and access road are showing extreme headcutting in some areas. The access road to well #15C-9-5S-103 crosses East Evacuation Creek. At this location, East Evacuation Creek is a perennial stream.

Environmental Consequences of the Proposed Action: The potential exists for sediment deposition into both East Evacuation Creek and Missouri Creek from road construction. Compaction from heavy equipment is also possible. The roads and wells will increase the number of vehicles crossing these creeks.

Environmental Consequences of the No Action Alternative: No sedimentation, compaction or increase in traffic would occur at this time or place.

Mitigation: Both of these roads will have elevated low water crossings constructed across East Evacuation Creek and Missouri Creek perpendicular to the creek. If the well is a producer, Evergreen will be required to rock the stream crossing and the approaches. All excess material from the construction and sediment from stream flow events will have to be hauled from the creek crossing. A locked gate will be placed before the road crosses East Evacuation Creek on Well #15C-9-5S-103 to reduce traffic across this perennial stream.

Finding on the Public Land Health Standard for riparian systems: This project would not jeopardize the viability of riparian systems. It would have no significant consequence on terrestrial habitat condition, utility, or function, nor have any discernible affect on riparian systems at any landscape scale. This public land health standard will thus be met.

CRITICAL ELEMENTS NOT PRESENT OR NOT AFFECTED:

No ACEC's, flood plains, prime and unique farmlands, Wilderness, or Wild and Scenic Rivers, threatened, endangered or sensitive plants exist within the area affected by the proposed action.

For threatened, endangered and sensitive plant species Public Land Health Standard is not applicable since neither the proposed nor the no-action alternative would have any influence on populations of, or habitats potentially occupied by, special status plants. There are also no Native American religious or environmental justice concerns associated with the proposed action.

NON-CRITICAL ELEMENTS

The following elements **must** be addressed due to the involvement of Standards for Public Land Health:

SOILS (includes a finding on Standard 1)

Affected Environment: Baseline soils data have been collected for Rio Blanco and Garfield Counties by the Natural Resource Conservation Service (NRCS) and are published in Order III Soil Surveys. These surveys are available for review from the White River Field Office. The majority of the proposed access roads and well pads are in soil mapping unit #74, Rentsac-Moyerson-Rock Outcrop Complex The table below identifies soil characteristics for these soil types.

Proposed Action	Soil Number	Soil Name	Slope	Range site	Salinity	Run Off	Erosion Potential	Bedrock
1C-24	41	Havre loam	0-4%	Foothill Swale	<4	Medium	Slight	>60
9C-33	64	Piceance fine sandy loam	5-15%	Rolling Loam	<2	Medium	Moderate to high	20-40
9C-33 16C-25 7C-24	74	Rentsac- Moyerson- Rock Outcrop complex	5-65%	PJ Woodlands/Clayey Slopes	<2	Medium	Moderate to very high	10-20
2C-9	89	Tisworth fine sandy loam	0-5%	Alkaline Slopes	>4	Rapid	Moderate	>60
10C-26	91	Torriorthents- Rock Outcrop complex	15-90%	Stoney Foothills		Rapid	Very high	10-20
15C-9	5	Battlement Loam		Foothill Swale		Medium	Slight	>60

Typically, as much as 2% of the surface is covered with stones. The surface layer is a brown flaggy loam about 12 inches thick. The next layer is pale brown channery loam about 9 inches thick. Sandstone is at a depth of 43 inches. The soils are calcareous throughout. Revegetation limitations for these soil types include an arid climate and droughty soil condition. Well 10C-26 is mapped as being CSU-1, which indicates problems such as fragile soil, high salt concentrations, excessive erosion, or steep slopes.

Environmental Consequences of the Proposed Action: CSU-1 stipulation description states, surface-disturbing activities will be allowed only after the operator submits an engineered construction/ reclamation plan and approved by the Field Manager. The plan would address how soil productivity would be restored and how surface runoff would be treated to avoid accelerated

erosion and mass wasting. Exceptions would be granted if after environmental analysis the proposed action did not fit the criteria identifying fragile soils on slopes greater than 35% or the disturbance would not result in any long-term decrease in site productivity or increased erosion.

Well 10C-26 is located on soils that are considered to be fragile on slopes greater than 35%. Based on the topographic map, the slope of this location is actually a 10% slope. Impacts associated with oil and gas and road development include but are not limited to, loss of topsoil, soil compaction and possible increase in sediment loads to the White River. The primary surface-disturbing impact would be a potential increase in sediment transport from runoff events after the protective vegetative cover has been removed. BMPs used to slow runoff, trap sediment and prepare reclaimed areas for seeding would help reduce soil loss. With the use of these BMPs, impacts are expected to be short in duration, during the construction phase and for a short time after construction until successful reclamation are achieved.

Environmental Consequences of the No Action Alternative: Impacts are not anticipated from not permitting the proposed action.

Mitigation: The following COAs from Appendix B, White River ROD/RMP should be applied.

Water bars or dikes shall be constructed on all of the rights-of-way, and across the full width of the disturbed area, as directed by the authorized officer.

Slopes within the disturbed area shall be stabilized by non-vegetative practices designed to hold the soil in place and minimize erosion. Vegetative cover shall be reestablished to increase infiltration and provide additional protection from erosion.

When erosion is anticipated, sediment barriers shall be constructed to slow runoff, allow deposition of sediment, and prevent it from leaving the site. In addition, straining or filtration mechanisms may also contribute to sediment removal from runoff

Finding on the Public Land Health Standard for upland soils: Soils at the proposed location do not meet the criteria established in the Public Land Health Standard. The proposed action would not change this status.

VEGETATION (includes a finding on Standard 3)

Affected Environment: Three vegetation types are represented in the proposed action. They are pinyon/juniper woodland, upland sage and bottom sage/greasewood. The pinyon/juniper community (16.2 acres) has shallow sandstone derived soils with a very sparse understory of grasses and forbs. The bottom sage/greasewood community (6.2 acres) has deep soils and contains sagebrush, greasewood, blue grama, and cheatgrass. Generally these bottom sites are in low-seral stage relative to the climax communities. This is the result of past livestock grazing practices which were through the growing season. The upland sage community (1.5 acres) contains sagebrush, winterfat, shadscale, salina wildrye, needle-and-thread grass, Indian

ricegrass and cheatgrass. These upland sagebrush sites are in mid-seral condition as a result of past livestock grazing practices. The pinyon/juniper sites contain old growth characteristics of large trees with sparse understory and suppressed regrowth.

Environmental Consequences of the Proposed Action: Vegetation on the three described vegetation types would be removed during the life of the project. Following reclamation all these sites would be stabilized by reclamation within three years and would then revert back to the native vegetation. On the sagebrush associations it is expected that sage would be dominant within 20 years. On the pinyon /juniper communities are expected to have seedling pinyon and juniper within 30 years and develop old growth characteristics in between 150 and 300 years.

Environmental Consequences of the No Action Alternative: There would be no impacts.

Mitigation: None

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): The sagebrush communities in the bottoms do not meet the standards for plant health. There is an abundance of cheatgrass which prevents growth during a portion of the season. The cheatgrass it that it dominates the area does not meet the standard.

WILDLIFE, AQUATIC (includes a finding on Standard 3)

Affected Environment: While two pads are located adjacent to perennial streams (East Evacuation Creek and Missouri Creek), no aquatic wildlife is known to occur in the vicinity of these two pads or downstream.

Environmental Consequences of the Proposed Action: None.

Environmental Consequences of the No Action Alternative: None.

Mitigation: None.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Terrestrial): Because there are no aquatic habitats or animals potentially influenced by the proposed or no-action alternatives, a land health standard finding is not applicable. The proposed and no action alternatives would have no measurable influence on aquatic habitats associated with downstream systems

WILDLIFE, TERRESTRIAL (includes a finding on Standard 3)

Affected Environment: Well #2C-9-4S-103: This pad is located in a greasewood patch surrounded by rimrock The rimrock holds a moderate to high potential for nesting by some raptor species, most notably golden eagles. This location falls within severe winter range for elk

as designated in the White River Record of Decision and Approved Resource Management Plan (RMP).

Well #1C-24-4S-104: The ½ mile of access road crosses sagebrush and an ephemeral draw. The pad location consists of sagebrush with some pinyon-juniper woodland surrounding the location that holds high raptor nesting potential. This location falls within severe winter range for elk as designated in the White River RMP.

Well #7C-24-4S-104: This site is located northwest of 1C-24 approximately 0.5 miles. The proposed road (0.5 miles) traverses contiguous, mature pinyon-juniper woodlands holding moderate potential for nesting raptors. Likewise, the pad location is dominated by mature and contiguous pinyon-juniper woodlands. This location falls within severe winter range for elk as designated in the White River RMP.

Well #16C-25-4S-104: The pad consists of pinyon-juniper and serviceberry with sagebrush adjacent to the pad. No nests were observed though the potential is moderate for nesting raptors. This location falls within severe winter range for elk as designated in the White River RMP.

Well #10C-26-4S-103: This site occupies a northern aspect on an old existing pad. The pad has revegetated nicely and consists of Gambel oak, juniper, serviceberry, young Douglas-fir, rabbit brush and forbs. Pinyon-juniper woodlands with interspersed Douglas-fir surround the pad. No nests were observed though nesting potential is high.

Well #9C-33-4S-103: Located near an existing pad, this location was moved into the pinyon pine woodlands to preserve a sagebrush park. Several large juniper trees also occupy the site. The new 0.15 miles of road will run along the type change (e.g., transition zone between sagebrush and pinyon-juniper. This mature pinyon component suggests a high raptor nesting potential. Evidence of heavy big game use was observed in the sagebrush park.

Well #15C-9-5S-103: This location occupies an existing pad and well that is surrounded by sagebrush and pinyon-juniper, with a minor component of Douglas-fir. The area holds a high potential for nesting by raptors.

Wells 2C-9, 1C-24, 7C-24 and 16C-25 fall within Severe Winter Range for elk as designated in the White River RMP. All wells fall within normal winter range for mule deer.

Environmental Consequences of the Proposed Action: The construction of this project will result in a long-term increase of road traffic associated with commercial oil/gas related activities. The development of commercial oil/gas facilities results in incremental reductions of severe winter range habitat for elk. Additionally, it will result in increased activity in an area holding moderate potential for nesting by raptors, as well as an increase in the disturbance from additional road traffic.

Environmental Consequences of the No Action Alternative: Failure to construct this well package/pipelines would reduce short-term construction activity levels in this area as well as

longer term activity associated with increased road traffic related to commercial oil/gas development. No net loss of severe winter range habitat would occur at this time or place.

Mitigation: Wells 2C-9, 1C-24, 7C-24 and 16C-25 fall within designated Severe Winter Range for elk. As a condition of approval, the BLM may preclude development activities for up to 60 days from December 1 through April 30. Local weather conditions will dictate whether this condition is in effect or not. It is the responsibility of Evergreen to contact the BLM to determine whether this condition is in effect prior to initiating surface disturbing activities.

A current raptor survey must be obtained from the BLM for these wells/pipelines if construction and completion activities for this well package are scheduled between February 1 and August 15. It is the responsibility of Evergreen to contact the BLM to obtain a current survey.

As a condition of approval a locked gate shall be placed at the junction of the existing road and point of new road construction heading north (section line between sections 24 and 25) for the road to Wells 1C-24-4S-104 and 7C-24-4S-104. This gate shall be placed in a location practical to preclude motorized access and may include fence extensions at lengths necessary to preclude access. Installation of this gate will occur immediately (within 60 days) after the well shows production.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Aquatic): This project would not jeopardize the viability of any animal population. It would have no significant consequence on terrestrial habitat condition, utility, or function, nor have any discernible affect on animal abundance or distribution at any landscape scale. This public land health standard will thus be met.

OTHER NON-CRITICAL ELEMENTS: For the following elements, only those brought forward for analysis will be addressed further.

Non-Critical Element	NA or Not	Applicable or Present, No Impact	Applicable & Present and Brought Forward for
	Present	Tresenty I to Impact	Analysis
Access and Transportation			X
Cadastral Survey	X		
Fire Management			X
Forest Management			X
Geology and Minerals			X
Hydrology/Water Rights	X		
Law Enforcement		X	
Noise		X	
Paleontology			X
Rangeland Management			X
Realty Authorizations			X
Recreation			X
Socio-Economics		X	
Visual Resources			X

Non-Critical Element	NA or Not	Applicable or Present, No Impact	Applicable & Present and Brought Forward for
	Present		Analysis
Wild Horses	X		

ACCESS AND TRANSPORTATION

Affected Environment: Rio Blanco County road 25 as well as BLM roads 1222, 1225, 1225A and 1062 will be affected by the proposed action.

Environmental Consequences of the Proposed Action: An increase in traffic could be expected during the life of these wells. The percentage increase is not known but many of these roads see very traffic most of the year (less than 1 vehicle/day). It could be suggested that roads surfaces may be impacted by heavy construction traffic associated with oil and gas activities.

Environmental Consequences of the No Action Alternative: None.

Mitigation: None.

FIRE MANAGEMENT

Affected Environment: The #16C-25-4S-104, #9C-33-4S-103, #7C-24-4S-104 wells proposed involve approximately 0.2 miles of road construction and about 3.12 acres of drill pad clearing for an approximate total of 4.12 acres of disturbance in pinyon/juniper stands.

The National Fire Plan calls for "firefighter and public safety" to be the highest priority for all fire management activities. In the pinion, juniper, and brush types common on the White River Resource Area, roads and other man-made openings are commonly used as fuel breaks or barriers to control the spread of both wildland and prescribed fires. By reducing the activity fuels created from this proposal, future fire management efforts in this area should be safer for those involved and more effective.

Environmental Consequences of the Proposed Action: Due to the existing tree cover of pinion and juniper, there will be a need for the operator to clear some of these trees. If not adequately treated, these trees will result in elevated hazardous fuels conditions and remain onsite for many years. These accumulations of dead material are very receptive to fire brands and spotting from wind driven fires and can greatly accelerate the rate of spread of the fire front. The road(s) associated with this project may be used by the general public for a variety of uses, including access for fire wood gathering, hunting and other dispersed recreational activities. Increased public use of an area will nearly always result in an increased potential for man-caused wildland fires. If not treated the slash and woody debris will create an elevated hazardous dead fuel loading which could pose significant control problems in the event of a wildfire. Additionally there would be greater threat to the public, Evergreen personnel/contractors, and fire suppression personnel.

Environmental Consequences of the No Action Alternative: There would be no tree removal or disturbance to cause significant dead fuel loading.

Mitigation: The operator has two options for treatment of slash from this project. A hydro-ax or other mulching type machine could be used to remove the trees. The machines are capable of shredding trees up to 12" in diameter and 15' tall as well as mowing brush like a conventional brush beater. It generally leaves small branches and pieces of wood from pencil size up to bowling ball size. The mulch is evenly scattered across the surface and the tires or tracks distribute the weight of the equipment. This would effectively breakdown the woody fuels and scatter the debris thereby eliminating any hazardous fuel load adjacent to the new road, pipeline and well pad locations. The other option would be to cut trees and have them removed for firewood, posts, or other products (See Forest Management Section). The branches and tops should be lopped and scattered to a depth of 24 inches or less. If the products are left for collection by the general public, they should be stacked in small manageable piles along the roadside or pad to facilitate removal.

FOREST MANAGEMENT

Affected Environment:

The 7C-24-4S-104 and 16C-25-4S-104 wells are located within pinyon/juniper woodlands. For the most part these stands contain old growth characteristics. These woodlands are valuable locally as a source of firewood and posts for fence construction.

Environmental Consequences of the Proposed Action: The proposed project would remove approximately 2 acres of pinyon/juniper woodland. The permit holder is required to purchase this woodland material and dispose of it as described in mitigation. Following reclamation these woodlands would be colonized by pinyon and junipers within 30 years and would develop old growth characteristics between 150 and 300 years.

Environmental Consequences of the No Action Alternative: There would be no impacts.

Mitigation: From the White River ROD/RMP of 1997, Appendix B, 7; all trees removed in the process of construction shall be purchased from the Bureau of Land Management. The trees shall be cut with a maximum stump height of six inches and disposed of by one of the following methods:

- a. Trees must be cut before being dozed off the area of disturbance. Trees shall be cut into four-foot lengths, down to four inches in diameter and placed along the edge of the disturbance.
- b. Purchased trees may be removed from federal land for resale or private use. Limbs may be scattered off the area of disturbance but not dozed off.

c. Chipped and scattered.

GEOLOGY AND MINERALS

Affected Environment: The surface geologic formation of the well locations 15C-9 and 10C-26 is Mesaverde, 9C-33 is colluvial, 2C-9 is alluvial, 16C-25, 7C-24, and 1C-24 is Wasatch. Evergreen's targeted zone is in the Mesaverde. During drilling potential water, coal and gas zones will be encountered from surface to the targeted zone. These wells are located on existing Federal Oil and Gas leases COC-10698A, COC-02756, COC-9500, COC-10700 and COC-10179.

Environmental Consequences of the Proposed Action: Cementing procedure of the proposed actions isolates the formations and will prevent the migration of gas, water, and oil between formations. The coal zones located the Mesaverde will also be isolated using this cementing procedure. Development of these wells will deplete the natural gas resources in the targeted formation.

Environmental Consequences of the No Action Alternative: The coal bed natural gas resources in the targeted zones will not be recovered at this time.

Mitigation: None

PALEONTOLOGY

Affected Environment: Columbine Springs Federal 2C-9-4S-103 well pad: The proposed well pad location is in an area mapped as the Mesa Verde (Tweto 1979) which the BLM has classified as a Condition I formation meaning it is known to produce scientifically important fossil resources.

Columbine Springs Federal 1C-24-4S-104 well pad and access road: the proposed well pad location is in an area mapped as the Wasatch Formation (Tweto 1979) which the BLM has classified as a Condition I formation meaning it is known to produce scientifically important fossil resources.

Columbine Springs Federal 7C-24-4S-104well pad and access road: the proposed well pad and access road are in an area mapped as the Wasatch Formation (Tweto 1979) which the BLM has classified as a Condition I formation meaning it is known to produce scientifically important fossil resources.

Columbine Springs Federal 16C-25-4S-104 well pad and access route: the proposed well pad and access road are in an area mapped as the Douglas Creek member of the Lower Green River Formation (Tweto 1979) which the BLM currently has classified at a Condition2 formation, meaning it's fossil bearing potential is not fully understood in the area and that scientifically important fossil resources cannot be ruled out.

Columbine Springs Federal 10C-26-4S-104 well pad, access road and well tie pipeline: the proposed well pad, access road and well tie pipeline are located in an area mapped as the Mesa Verde formation (Tweto 1979) which the BLM has classified as a Condition I formation meaning it is known to produce scientifically important fossil resources.

Columbine Springs Federal 9C-33-4S-103 well pad, access road and well tie pipeline: the proposed well pad, access road and well tie pipeline are located in an area mapped as the Mesa Verde formation (Tweto 1979) which the BLM has classified as a Condition I formation meaning it is known to produce scientifically important fossil resources.

Columbine Springs Federal 15C-9-5S-103 well pad, access road and well tie pipeline: the proposed well pad, access road and well tie pipeline are located in an area mapped as the Mesa Verde and Wasatch formations (Tweto 1979) which the BLM has classified as a Condition I formations meaning they are known to produce scientifically important fossil resources.

Environmental Consequences of the Proposed Action: Columbine Springs Federal 2C-9-4S-103 well pad: if it becomes necessary to excavate into the underlying bedrock formation to level the pad or excavate the reserve/blooie pit there is a high potential to impact scientifically important fossil resources.

Columbine Springs Federal 1C-24-4S-104 well pad, access road and well tie pipeline: if it becomes necessary to excavate into the underlying bedrock formation to construct the road, bury the well tie pipeline, level the pad or excavate the reserve/blooie pit there is a high potential to impact scientifically important fossil resources.

Columbine Springs Federal 7C-24-4S-104 well pad, access road and well tie pipeline: if it becomes necessary to excavate into the underlying bedrock formation to construct the road, bury the well tie pipeline, level the pad or excavate the reserve/blooie pit there is a high potential to impact scientifically important fossil resources.

Columbine Springs Federal 16C-25-4S-104 well pad, access road and well tie pipeline: There is an unknown potential to impact fossil resources if it becomes necessary to level the road, bury the well tie pipeline, level the pad or excavate the reserve/blooie pit for this well.

Columbine Springs Federal 10C-26-4S-104 well pad, access road and well tie pipeline: if it becomes necessary to excavate into the underlying bedrock formation to construct the road, bury the well tie pipeline, level the pad or excavate the reserve/blooie pit there is a high potential to impact scientifically important fossil resources.

Columbine Springs Federal 9C-33-4S-103 well pad, access road and well tie pipeline: if it becomes necessary to excavate into the underlying bedrock formation to construct the road, bury the well tie pipeline, level the pad or excavate the reserve/blooie pit there is a high potential to impact scientifically important fossil resources.

Columbine Springs Federal 15C-9-5S-103 well pad, access road and well tie pipeline: if it becomes necessary to excavate into the underlying bedrock formation to construct the road, bury

the well tie pipeline, level the pad or excavate the reserve/blooie pit there is a high potential to impact scientifically important fossil resources.

Environmental Consequences of the No Action Alternative: There would be no new impacts to fossil resources under the No Action Alternative.

Mitigation: For the proposed action: 1. All exposed outcrops of bedrock in the project area must be examined for fossil resources by an approve paleontologist with a report detailing the results of the inventory and any recommended mitigation must be submitted to the BLM prior to initiation of construction.

2. If at any time it becomes necessary to excavate into the underlying bedrock formation to construct the road, pipeline, level the pad or excavate the reserve/blooie pit then a paleontological monitor shall be present during all such excavation.

RANGELAND MANAGEMENT

Affected Environment: The majority of the wells are located on the Evacuation Creek allotment. The 15C-9-5S-103 is located within the East Evacuation Creek allotment which is administered by the Grand Junction Field Office. The 19C-26-4S-103 is located within the Twin Buttes grazing allotment. All of these allotments graze cattle on a year round basis, with the project area being used during the spring and fall on Evacuation Creek Allotment and during the summer on the Twin Buttes and East Evacuation Creek allotments.

Environmental Consequences of the Proposed Action: Overall the loss of forage to all of the wells (7) would be less than one Animal Unit Month. The well within the Twin Buttes allotment is entirely on existing disturbance and would pose no change from the current situation. The well within the East Evacuation Creek allotment crosses East Evacuation Creek and would be sited above what appears to be a seep or pond. If this pond or seep were lost this would not be a problem because of the close proximity of East Evacuation Creek which is perennial. There are two cattleguards on the access up Missouri creek, use of the road by heavy equipment is expected to eventually damage or fill the boxes of the cattleguards.

Environmental Consequences of the No Action Alternative: There would be no impacts on rangeland management because of the no action alternative.

Mitigation: The operator will be required to maintain or replace the cattleguards if their operations are found to have damaged them. The operator will also be required to clean the cattleguards as needed, and notify the BLM when work on the cattleguards is completed.

REALTY AUTHORIZATIONS

Affected Environment: Evergreen Resources Inc. currently holds access road and water line rights-of-way in the general area. Additional authorizations will be required. There are

existing pipelines and other users in the areas. Canyon Gas holds authorizations for gas pipelines and will submit their own applications at a later date.

Environmental Consequences of the Proposed Action: Columbine Springs Federal 2C-9-4S-103: Access shall be on lease from an existing ROW. A water line will be authorized for 600 feet within the road right-of-way.

Columbine Springs Federal 1C-24-4S-10: Access shall be authorized by amendment to COC 34263 for 7388 feet.

Columbine Springs Federal 7C-24-4S-104 Access will be included with the 1C-24-4S-104 amendment and 2100 feet of waterline will be constructed within that right-of-way.

Columbine Springs Federal 16C-25-4S-104 Access will be included with the 1C-24-4S-104 amendment and 200 feet of waterline will be constructed within that right-of-way.

Columbine Springs Federal 10C-26-4S-103 Access shall be authorized by amendment to COC 34301 for 3200 feet, with additional access on lease. A waterline for 9500 feet will be constructed within that right-of-way.

Columbine Springs Federal 9C-33-4S-103 Access shall be authorized by amendment to COC 34263 for 8000 feet and 2400 feet of water line shall be constructed within that right-of-way.

Columbine Springs Federal 15C-9-5S-103 Access shall be authorized by amendment to COC 34263 for 800 feet off lease access. The water line shall be on-pad.

All rights-of way shall be 40 feet wide with a total area of approximately 24.14 acres.

Environmental Consequences of the No Action Alternative: No wells would be drilled or well pads would be constructed and no access or pipelines would be required.

Mitigation: The Colorado One Call procedure must be activated before trenching takes place.

RECREATION

Affected Environment: The proposed action occurs within the White River Extensive Recreation Management Area (ERMA). BLM custodially manages the ERMA to provide for unstructured recreation activities such as hunting, dispersed camping, hiking, horseback riding, wildlife viewing and off-highway vehicle use.

The project areas and the surrounding Evacuation Creek area most resemble a Recreation Opportunity Spectrum (ROS) class of Semi-Primitive Motorized (SPM). SPM recreation setting is typically characterized by a natural appearing environment with few administrative controls, low interaction between users but evidence of other users may be present. SPM recreation

experience is characterized by a high probability of isolation from the sights and sounds of humans that offers an environment that offers challenge and risk.

Environmental Consequences of the Proposed Action: The public will directly lose approximately 17 acres of dispersed recreation potential while wells are in operation. The public will most likely not recreate in the vicinity of these facilities and will be dispersed elsewhere. If action coincides with hunting seasons (September through November) it will most likely disrupt the experience sought by those recreationists.

With the introduction of new well pads and roads, an increase of traffic could be expected increasing the likihood of human interactions, the sights and sounds associated with the human environment and a less naturally appearing environment. It could be suggested that with an increase in human activity and an increase in man-made facilities that the area will become more like a Roaded Natural (RN) classification of the ROS. RN setting may have modifications which range from being easily noticed to strongly dominant to observers within the area. However, from sensitive travel routes and use areas these alterations would remain unnoticed or visually subordinate. Frequency of contact is: Moderate to high on roads; Low to Moderate on trails and away from roads within RN settings.

Environmental Consequences of the No Action Alternative: No loss of dispersed recreation potential and no impact to hunting recreationists.

Mitigation: None.

VISUAL RESOURCES

Affected Environment: The proposed actions lie within areas with VRM II (9C-33, 10C-26, 15C-9), and VRM III (1C-24, 2C-9, 7C-24, 16C-25) classifications. The objective of the VRM II class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape. The objective of the VRM III class is to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

Environmental Consequences of the Proposed Action: The 1C-24, 7C-24, and 16C-25 well pads would be located on an intermediate ridge below the crest of the ridge between Whiskey Creek and Evacuation Creek: Access to the locations would be through private property in Whiskey Creek which would limit the chances of a casual observer being able to view the proposed actions. The locations would also be surrounded by stands of pinyon/juniper. Well 9C-33 would be located in a canyon in stands of pinyon/juniper and not visible from the nearest existing road (1.5 mi.) which is accessible by passing through private lands. Well 10C-

26 would be located partially on an existing well pad surrounded by pinyon/juniper trees and not visible from the nearest route (Missouri Creek-1.75 mi.) traveled by a casual observer. Well 2C-9 would be adjacent to Missouri Creek, a route that could be traveled by a casual observer, but would be visible only for a short period of time and would attract the attention of the casual observer, but would not dominate the view. Well 15C-9 would be located adjacent to an existing road (East Evacuation Creek), but access to this road is through private land and the number of casual observers would be limited. By utilizing low profile production equipment and painting all production facilities Juniper green to blend with and mimic the surrounding vegetation types, the change to the predominant natural features of the characteristic landscape should be low and the objective of the VRM II and VRM III classification would be retained.

Environmental Consequences of the No Action Alternative: There would be no environmental consequences.

Mitigation: Use low profile production equipment and paint all production equipment and facilities color stated in APD.

CUMULATIVE IMPACTS SUMMARY: Cumulative impacts from oil and gas development were analyzed in the White River Resource Area PRMP/FEIS. Current development, including the action proposed in the analyzed action, has not exceeded the foreseeable development analyzed in the PRMP/FEIS.

REFERENCES CITED:

Brogan, John M. and Tracy Hall

2004 Evergreen Resources: Class III Cultural Resource Inventory for Twelve Columbine Springs Federal Well Pads and Associated Access Roads, Rio Blanco County, Colorado. Metcalf Archaeological Consultants, Inc., Eagle, Colorado.

Jennings, Sarah L.

2004 Evergreen Resources, Inc.: Class III Cultural Resource Inventories of Six Proposed Columbine Springs Federal Well, Access, and Pipeline Developments (2C-9-4S-103, 7C-24-4S-104, 9C-33-4S-103, 13C-14-4S-104, 15C-9-5S-103 and 16C-24-4S-104) and the Proposed Columbine Springs Federal 10C-26-4S-103 Pipeline in Rio Blanco and Garfield Counties, Colorado.

Tweto, Ogden

1979 Geologic Map of Colorado. United States Geologic Survey, Department of the Interior, Reston, Virginia.

PERSONS / AGENCIES CONSULTED: None

INTERDISCIPLINARY REVIEW:

Name	Title	Area of Responsibility
Carol Hollowed	Hydrologist	Air Quality
Tamara Meagley	Natural Resource Specialist	Areas of Critical Environmental Concern
Tamara Meagley	Natural Resource Specialist	Threatened and Endangered Plant Species
Michael Selle	Archaeologist	Cultural Resources Paleontological Resources
Robert Fowler	Forester	Invasive, Non-Native Species
Glenn Klingler	Wildlife Biologist	Migratory Birds
Glenn Klingler	Wildlife Biologist	Threatened, Endangered and Sensitive Animal Species, Wildlife
Bo Brown	Hazmat Collateral	Wastes, Hazardous or Solid
Carol Hollowed	Hydrologist	Water Quality, Surface and Ground Hydrology and Water Rights
Glenn Klingler	Wildlife Biologist	Wetlands and Riparian Zones
Chris Ham	Outdoor Recreation Planner	Wilderness
Carol Hollowed	Hydrologist	Soils
Robert Fowler	Forester	Vegetation
Glenn Klingler	Wildlife Biologist	Wildlife Terrestrial and Aquatic
Chris Ham	Outdoor Recreation Planner	Access and Transportation
Ken Holsinger	Natural Resource Specialist	Fire Management
Robert Fowler	Forester	Forest Management
Paul Daggett	Mining Engineer	Geology and Minerals
Robert Fowler	Forester	Rangeland Management
Linda Jones	Realty Specialist	Realty Authorizations
Chris Ham	Outdoor Recreation Planner	Recreation
Keith Whitaker	Natural Resource Specialist	Visual Resources
Valerie Dobrich	Natural Resource Specialist	Wild Horses

Finding of No Significant Impact/Decision Record (FONSI/DR)

CO-110-2004-206-EA

FINDING OF NO SIGNIFICANT IMPACT (FONSI)/RATIONALE: The environmental assessment and analyzing the environmental effects of the proposed action have been reviewed. The approved mitigation measures (listed below) result in a Finding of No Significant Impact on the human environment. Therefore, an environmental impact statement is not necessary to further analyze the environmental effects of the proposed action.

<u>**DECISION/RATIONALE**</u>: It is my decision to approve the APDs analyzed in the above environmental assessment, subject to conditions of approval designed to implement the following mitigation measures. These actions are in conformance with the White River RMP, and would not be expected to result in unnecessary or undue degradation of public lands and resources.

MITIGATION MEASURES:

- 1. The operator shall spread water on the road surfaces to control fugitive dust and to help minimize short-term impacts.
- 2. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:
 - whether the materials appear eligible for the National Register of Historic Places
 - the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
 - a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and

procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

- 3. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.
- 4. Application of any herbicides must be under field supervision of an EPA-certified pesticide applicator. Herbicides must be registered by the EPA and application proposals must be approved by the BLM.
- 5. All disturbed areas including the cut and fill slopes not necessary for production will be promptly recontoured and revegetated using the recommended seed mix in the Vegetation section below.
- 6. Seed species used in reseeding disturbed areas will be based on the seed mixes identified in table B1. These mixes are based on range sites as determined by soils. Use Standard Seed Mix #2 listed below. Upon completion of seeding, the operator shall submit copies of the seed tags to the authorized officer.

Tuble D 1. Stullati a Sect Wilkes							
Seed Mix #	Species (Variety)	Lbs PLS/ Acre	Range sites				
2	Western wheatgrass (Arriba)	3	Alkaline Slopes, Clayey				
	Pubescent wheatgrass (Luna)	2	Foothills, Clayey Slopes,				
	Russian wildrye (Bozoisky)	2	Claypan, Mountain Shale				
	Crested wheatgrass (Fairway/Ephraim)	2					
	Yellow sweetclover (Madrid)	0.5					
	Fourwing saltbush (Wytana/Rincon)	2					
	Alternates: Winterfat						

Table B-1. Standard Seed Mixes

- 7. The operator shall collect and properly dispose of any solid wastes generated by the proposed actions.
- 8. The East Evacuation and Missouri Creek Roads shall have elevated low water crossings constructed across East Evacuation Creek and Missouri Creek perpendicular to the creek. If the well is a producer, the operator shall rock the stream crossing and the approaches. All excess material from the construction and sediment from stream flow events will have to be hauled from the creek crossing. A locked gate will be placed before the road crosses East Evacuation Creek on Well #15C-9-5S-103 to reduce traffic across this perennial stream.
- 9. Water bars or dikes shall be constructed on all of the rights-of-way, and across the full width of the disturbed area, as directed by the authorized officer.

- 10. Slopes within the disturbed area shall be stabilized by non-vegetative practices designed to hold the soil in place and minimize erosion. Vegetative cover shall be reestablished to increase infiltration and provide additional protection from erosion.
- 11. When erosion is anticipated, sediment barriers shall be constructed to slow runoff, allow deposition of sediment, and prevent it from leaving the site. In addition, straining or filtration mechanisms may also contribute to sediment removal from runoff
- 12. Wells 2C-9, 1C-24, 7C-24 and 16C-25 fall within designated Severe Winter Range for elk. As a result, the operator may be precluded from development activities for up to 60 days from December 1 through April 30. Local weather conditions will dictate whether this condition is in effect or not. It is the responsibility of the operator to contact the BLM to determine whether this condition is in effect prior to initiating surface disturbing activities.
- 13. A current raptor survey shall be obtained from the BLM for these wells/pipelines if construction and completion activities for this well package are scheduled between February 1 and August 15. It is the responsibility of the operator to contact the BLM to obtain a current survey.
- 14. A locked gate shall be placed at the junction of the existing road and point of new road construction heading north (section line between sections 24 and 25) for the road to Wells 1C-24-4S-104 and 7C-24-4S-104. This gate shall be placed in a location practical to preclude motorized access and may include fence extensions at lengths necessary to preclude access. Installation of this gate will occur immediately (within 60 days) after the well shows production.
- 15. All trees designated for removal shall be disposed of by one of the following methods: 10 Use of a hydro-ax or other mulching type machine; cut trees and have them removed for firewood, posts, or other products. If the second option is utilized, all trees removed in the process of construction shall be purchased from the Bureau of Land Management, and. The cut with a maximum stump height of six inches. Trees must be cut before being dozed off the area of disturbance. Trees shall be cut into four-foot lengths, down to four inches in diameter and placed along the edge of the disturbance. If the products are left for collection by the general public, they should be stacked in small manageable piles along the roadside or pad to facilitate removal. The branches and tops shall be lopped and scattered to a depth of 24 inches or less.
- 16. All exposed outcrops of bedrock in the project area must be examined for fossil resources by an approve paleontologist with a report detailing the results of the inventory and any recommended mitigation must be submitted to the BLM prior to initiation of construction. If at any time it becomes necessary to excavate into the underlying bedrock formation to construct the road, pipeline, level the pad or excavate the reserve/blooie pit then a paleontological monitor shall be present during all such excavation.

- 17. The operator shall maintain or replace the cattleguards if their operations are found to have damaged them. The operator will also be required to clean the cattleguards as needed, and notify the BLM when work on the cattleguards is completed.
- 18. The Colorado One Call procedure must be activated before trenching takes place.
- 19 The operator shall install low profile production equipment. All permanent above-ground facilities shall painted.

COMPLIANCE/MONITORING:

NAME OF PREPARER: Vern Rholl

NAME OF ENVIRONMENTAL COORDINATOR: Caroline Hollowed

SIGNATURE OF AUTHORIZED OFFICIAL: 74 7

Field Manager

DATE SIGNED: 12/03/04

ATTACHMENTS: Location map of the proposed action.

